

Fig. 1

26/6/08

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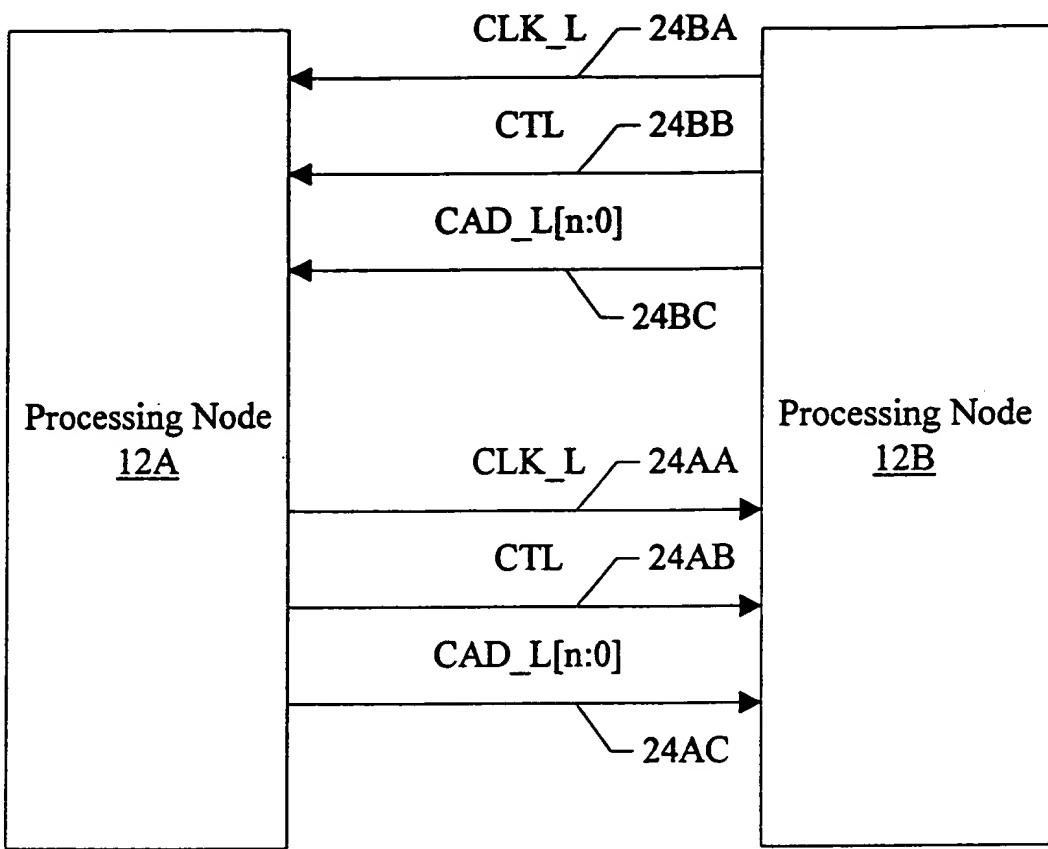


Fig. 2

Bit Time	7	6	5	4	3	2	1	0
1								CMD[5:0]
2								
3								
4								

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Fig. 3

Bit Time	7	6	5	4	3	2	1	0
1	SrcUnit [1:0]							CMD[5:0]
2		DestNode[2:0]		DestUnit [1:0]			SrcNode[2:0]	
3					SrcTag[4:0]			
4								
5				Addr[15:8]				
6				Addr[23:16]				
7				Addr[31:24]				
8				Addr[39:32]				

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Fig. 4

Bit Time	7	6	5	4	3	2	1	0
1	SrcUnit [1:0]							CMD[5:0]
2		DestNode[2:0]		DestUnit [1:0]		SrcNode[2:0]		
3					SrcTag[4:0]			
4	Sh							

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Fig. 5

Bit Time	7	6	5	4	3	2	1	0
1								Data[7:0]
2								Data[15:8]
3								Data[23:16]
4								Data[31:24]
5								Data[39:32]
6								Data[47:40]
7								Data[55:48]
8								Data[63:56]

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Fig. 6

<u>CMD Code</u>	<u>VChan</u>	<u>Command</u>	<u>Packet Type</u>
000000	-	Nop	Info
000001	NPC	VicBlk	Command/Data
000010		Reserved	
000011	NPC	ValidateBlk	Command
000100	NPC	RdBlk	Command
000101	NPC	RdBlkS	Command
000110	NPC	RdBlkMod	Command
000111	NPC	ChangetoDirty	Command
x01xxx	NPC or PC	WrSized	Command/Data
01xxxx	NPC	ReadSized	Command
100xxx		Reserved	
110000	R	RdResponse	Response/Data
110001	R	ProbeResp	Response
110010	R	TgtStart	Response
110011	R	TgtDone	Response
110100	R	SrcDone	Response
110101	R	MemCancel	Response
11011x		Reserved	
11100x	P	Probe	Command
111010	P	Broadcast	Command
111011		Reserved	
11110x		Reserved	
111110		Reserved	
111111	-	Sync	Info

Fig. 7

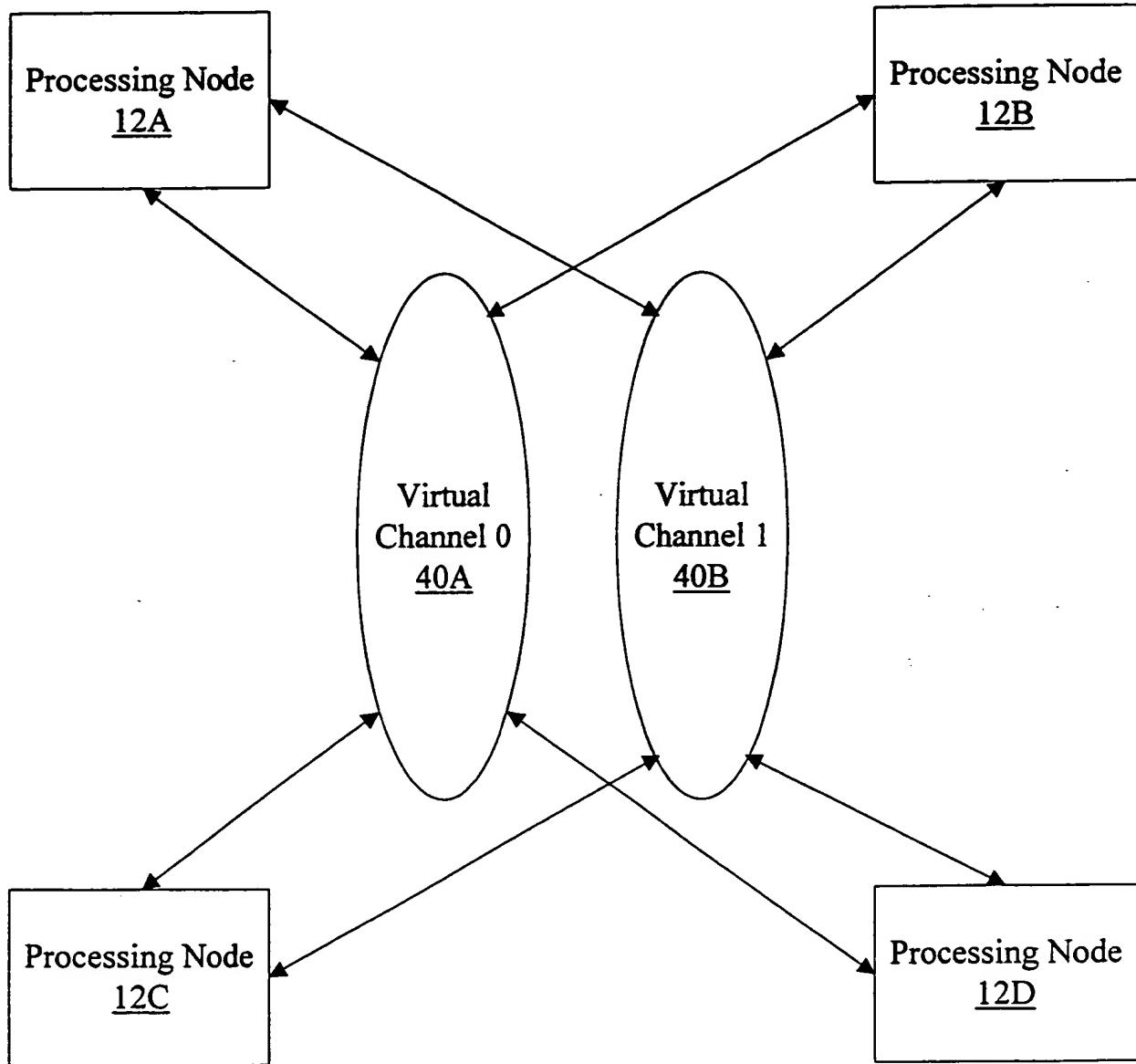


Fig. 8

## Virtual Channels

<u>Virtual Channel</u>	<u>Applicable Links</u>
Posted Commands	Coherent and NonCoherent
Non-Posted Commands	Coherent and NonCoherent
Responses	Coherent and NonCoherent
Probes	Coherent Only

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Fig. 9

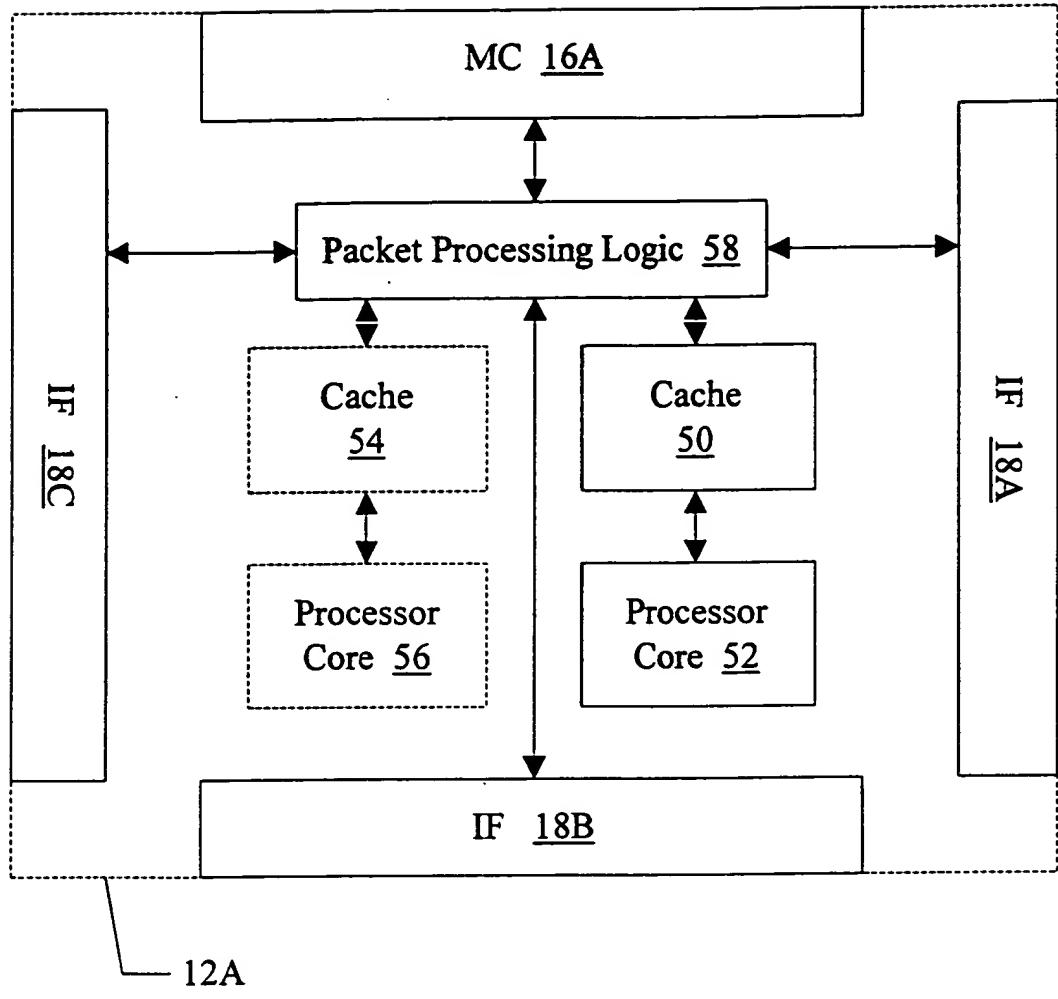


Fig. 10

to/from IF 18A, 18B, 18C  
to/from Memory Controller  
16A and Cache 50

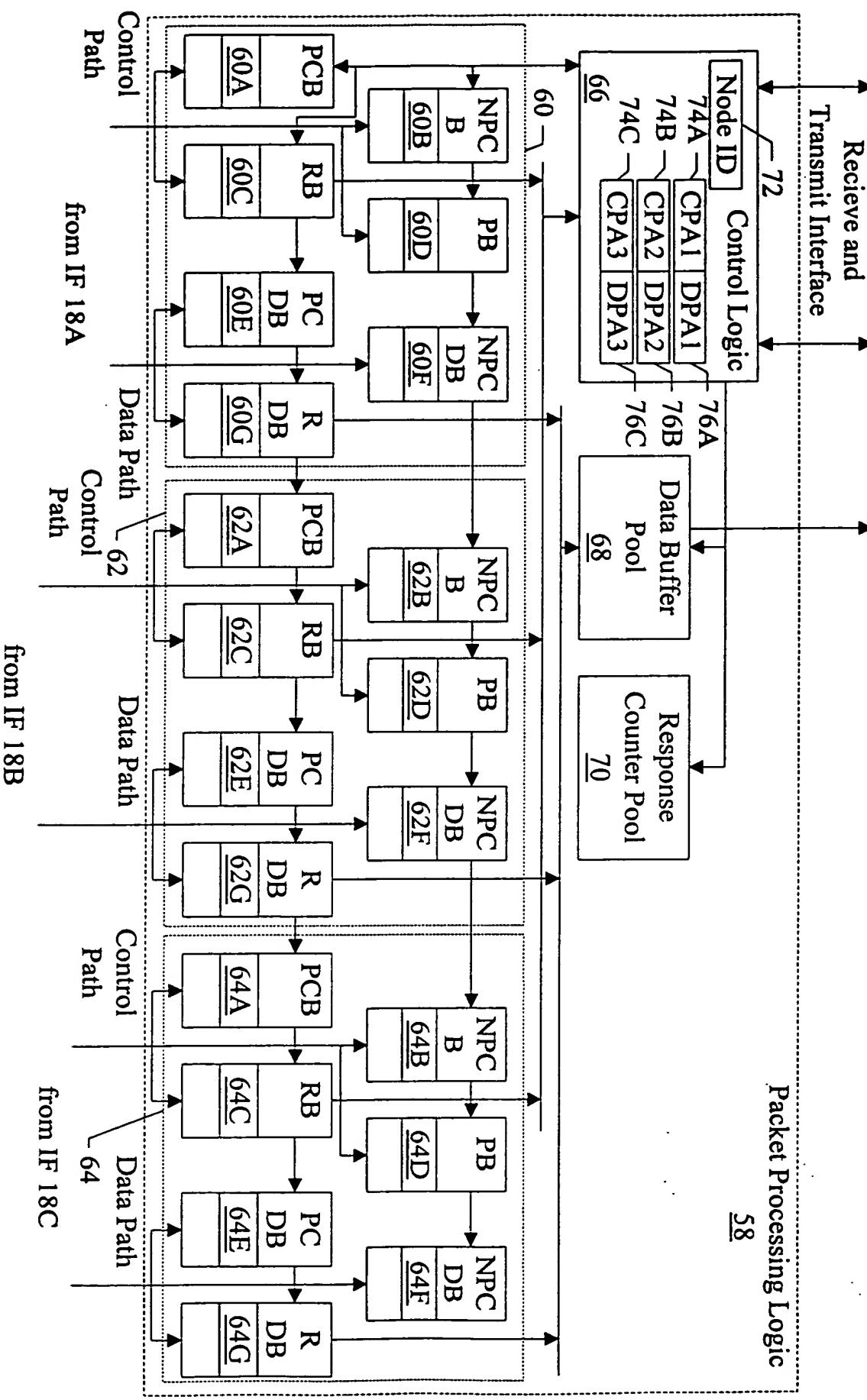


Fig. 11

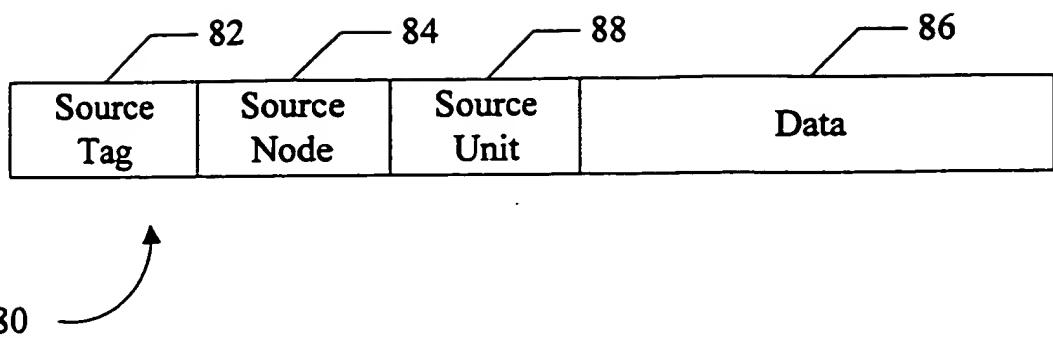


Fig. 12

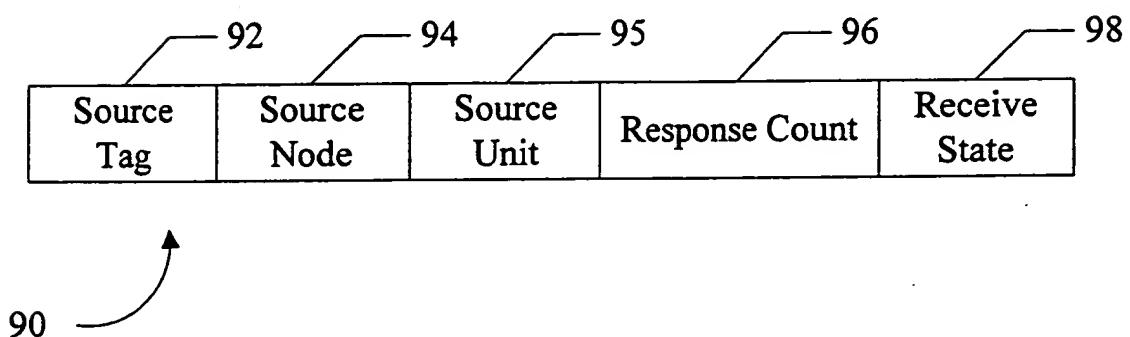


Fig. 13

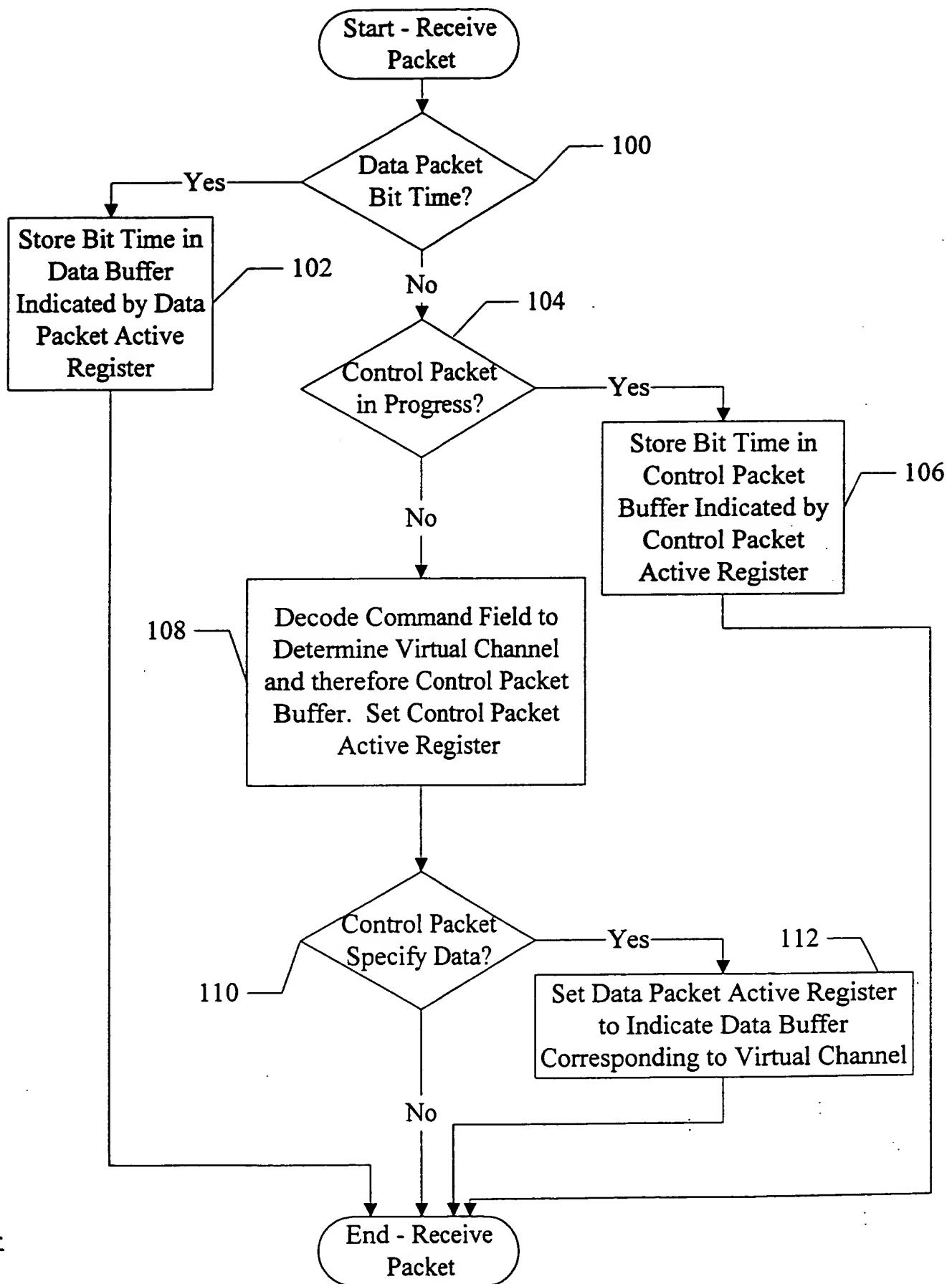


Fig. 14

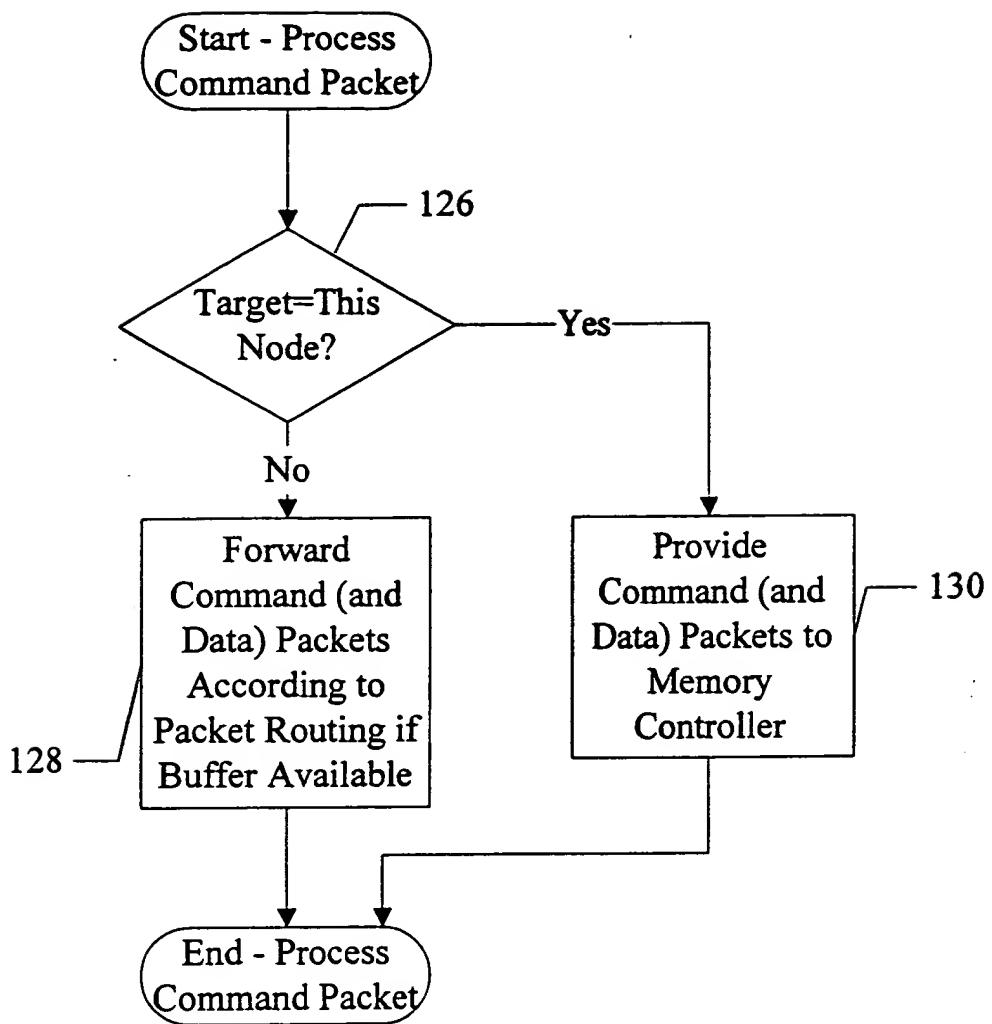


Fig. 15

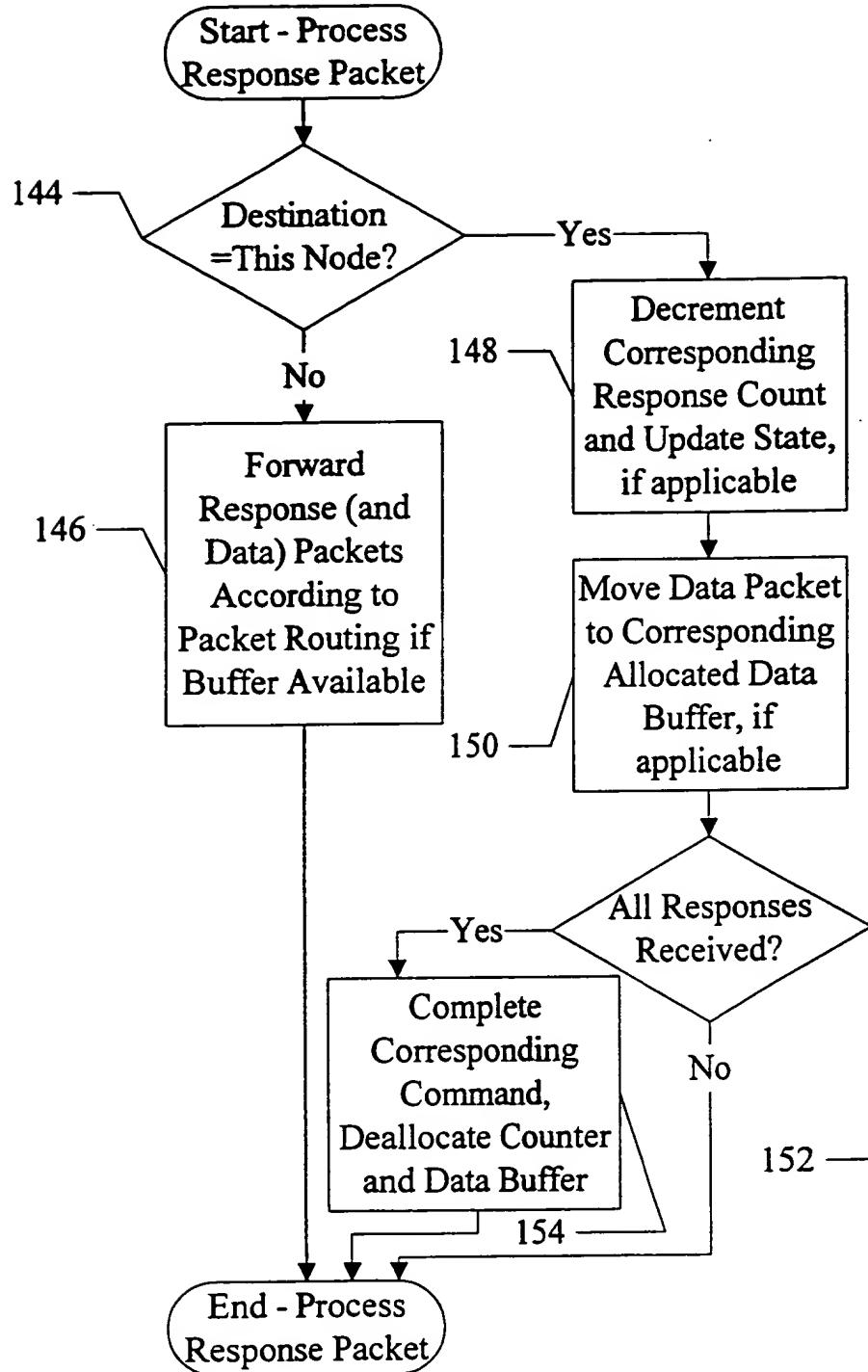


Fig. 16

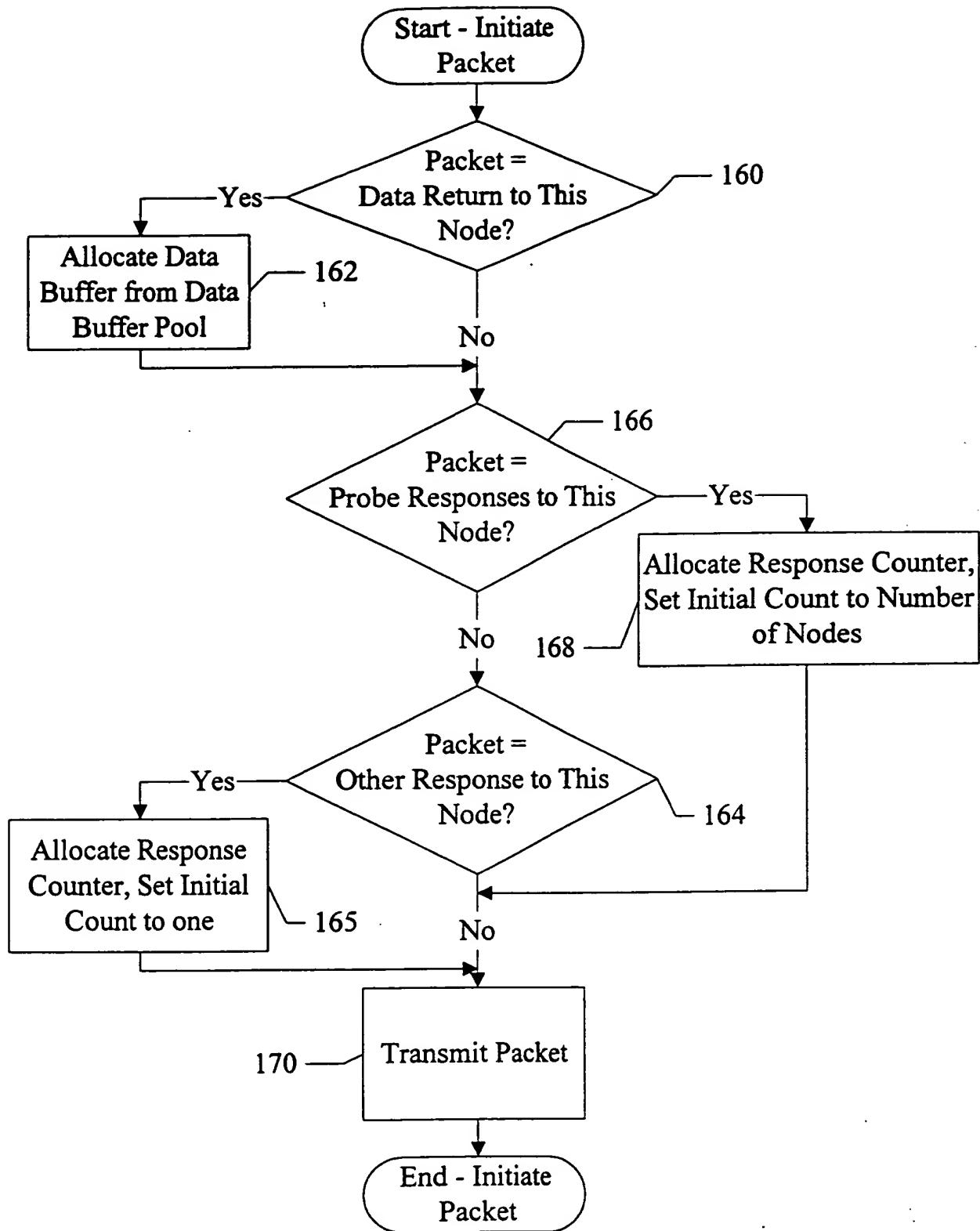
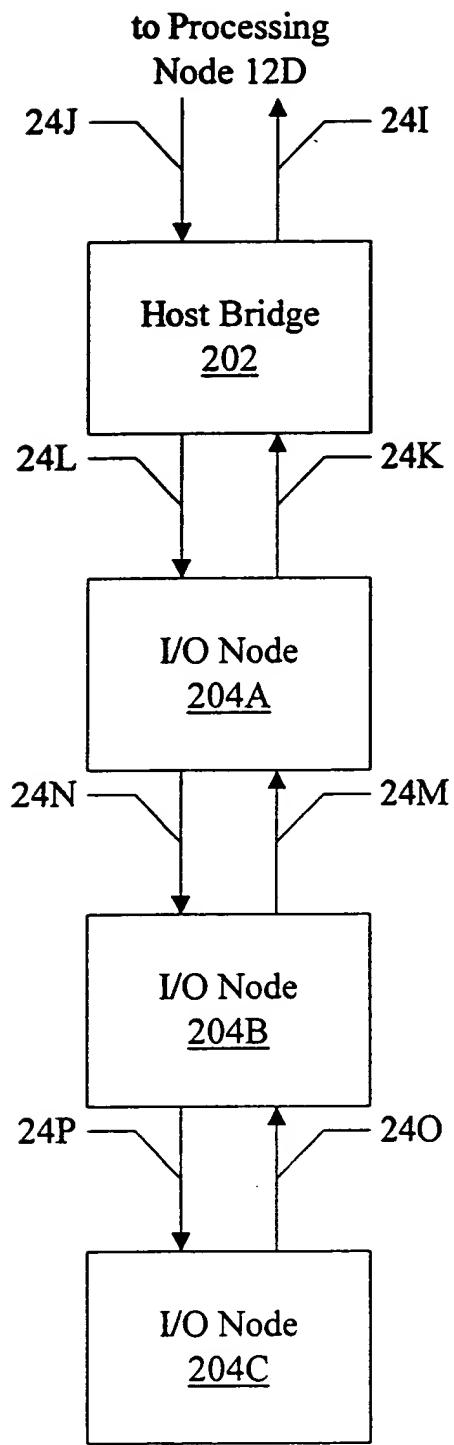


Fig. 17

Bit Time	7	6	5	4	3	2	1	0
1	RSV	CMD[5:0]						
2	RespData [1:0]	Response [1:0]		PostCmd Data[1:0]		PostCmd [1:0]		
3	RSV	Probe [1:0]		NonPost Data[1:0]		NonPost Cmd[1:0]		
4	RSV							

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Fig. 18



200

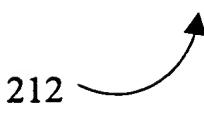
Fig. 19

<u>CMD Code</u>	<u>VChan</u>	<u>Command</u>	<u>Packet Type</u>
000000	-	Nop	Info
000001		Reserved	
000010	NPC	Flush	Command
000011		Reserved	
0001xx		Reserved	
x01xxx	NPC or PC	WrSized	Command/Data
01xxxx	NPC	ReadSized	Command
100xxx		Reserved	
110000	R	RdResponse	Response/Data
110001		Reserved	
110010		Reserved	
110011	R	TgtDone	Response
11010x		Reserved	
110110		Reserved	
110111	R	AssignAck	Response
11100x		Reserved	
111010	PC	Broadcast	Command
111011		Reserved	
11110x		Reserved	
111110	-	Assign	Info
111111	-	Sync	Info

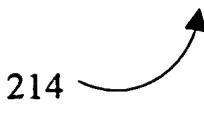
210

Fig. 20

Bit Time	7	6	5	4	3	2	1	0							
1	SeqID[3:2]		CMD[5:0]												
2	Pass PW	SeqID[1:0]		UnitID[4:0]											
3				SrcTag[4:0]											
4															
5	Addr[15:8]														
6	Addr[23:16]														
7	Addr[31:24]														
8	Addr[39:32]														

212   
Fig. 21

Bit Time	7	6	5	4	3	2	1	0		
1				CMD[5:0]						
2	Pass PW			UnitID[4:0]						
3				SrcTag[4:0]						
4										

214   
Fig. 22

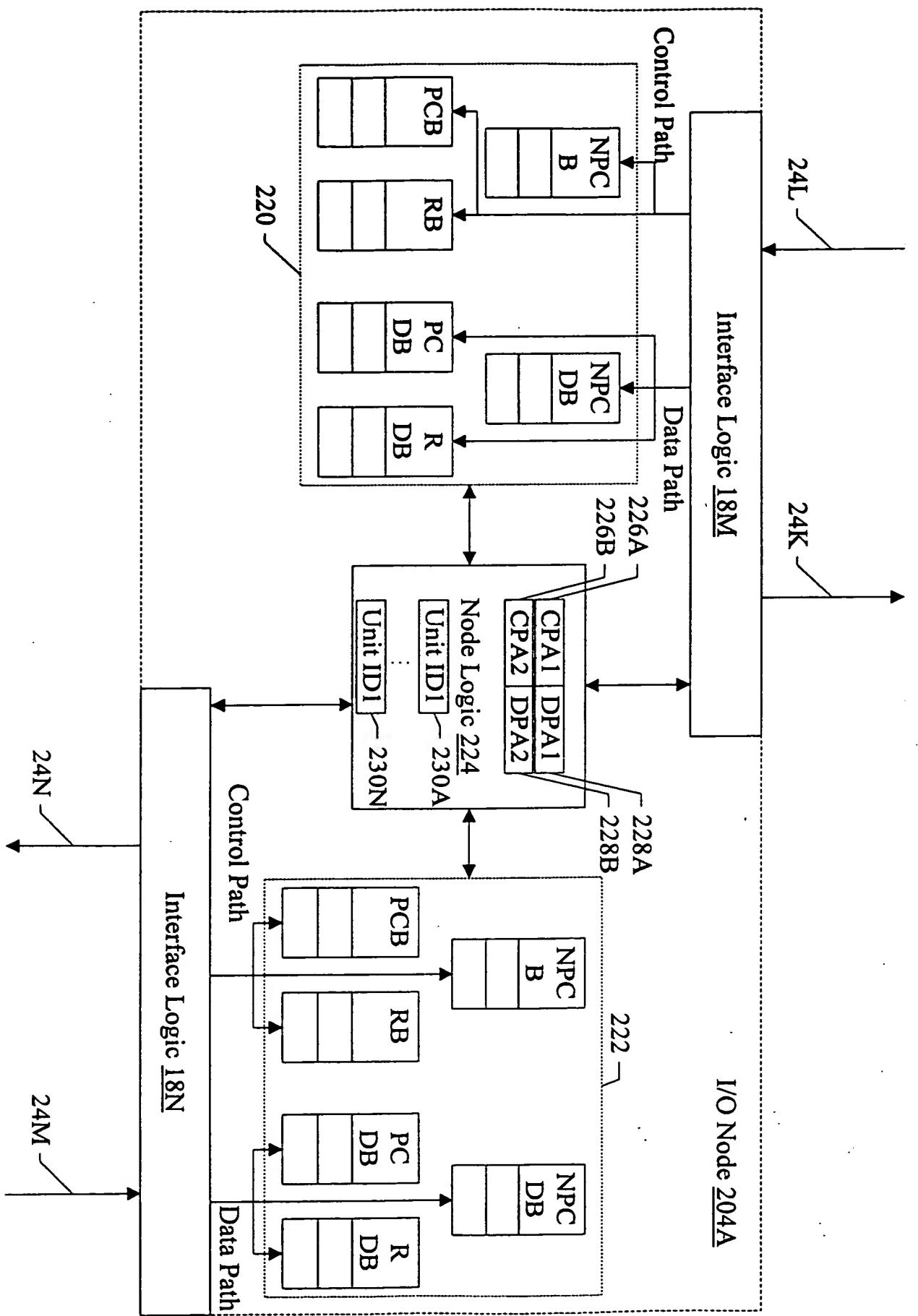


Fig. 23

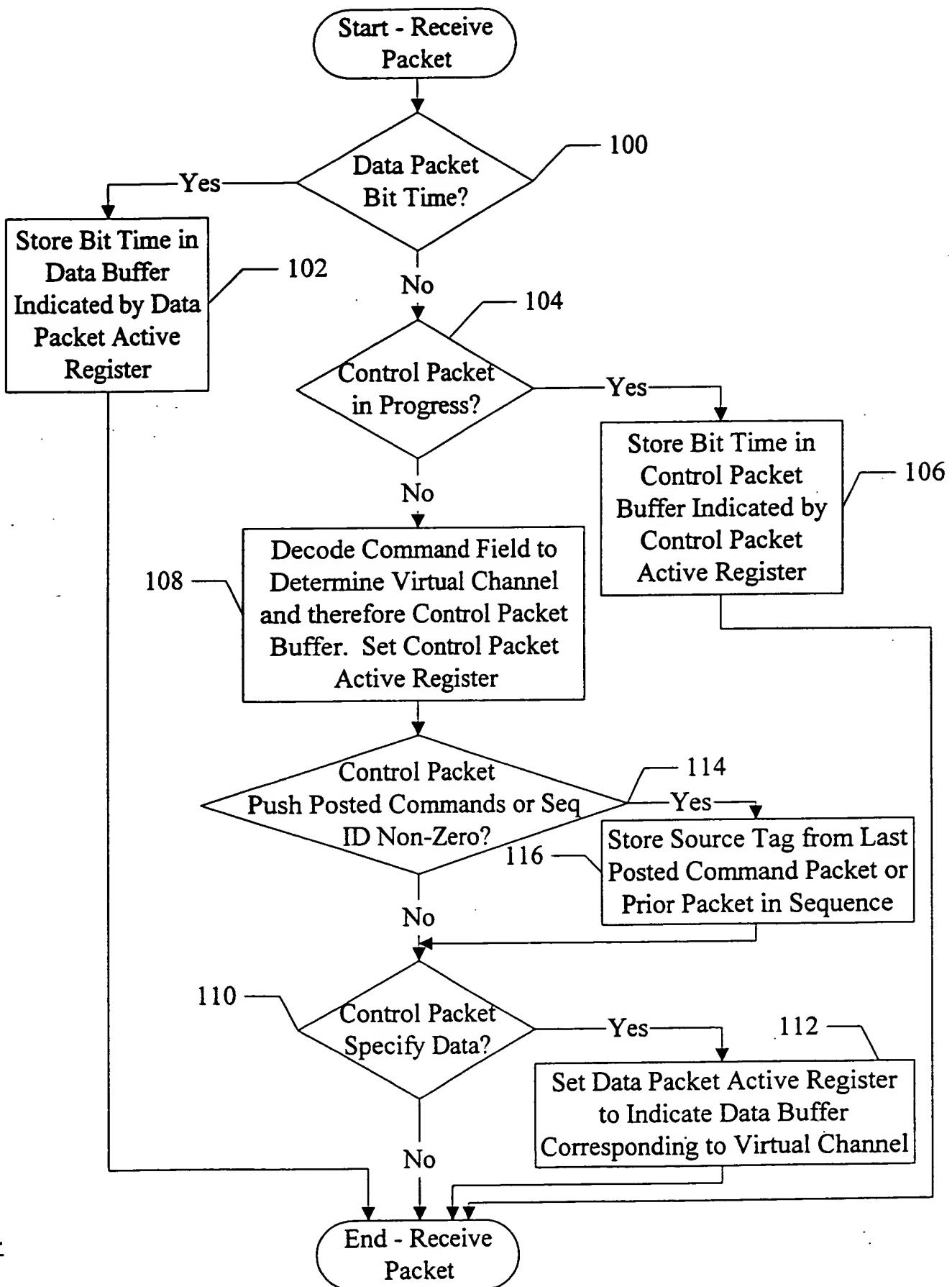


Fig. 24

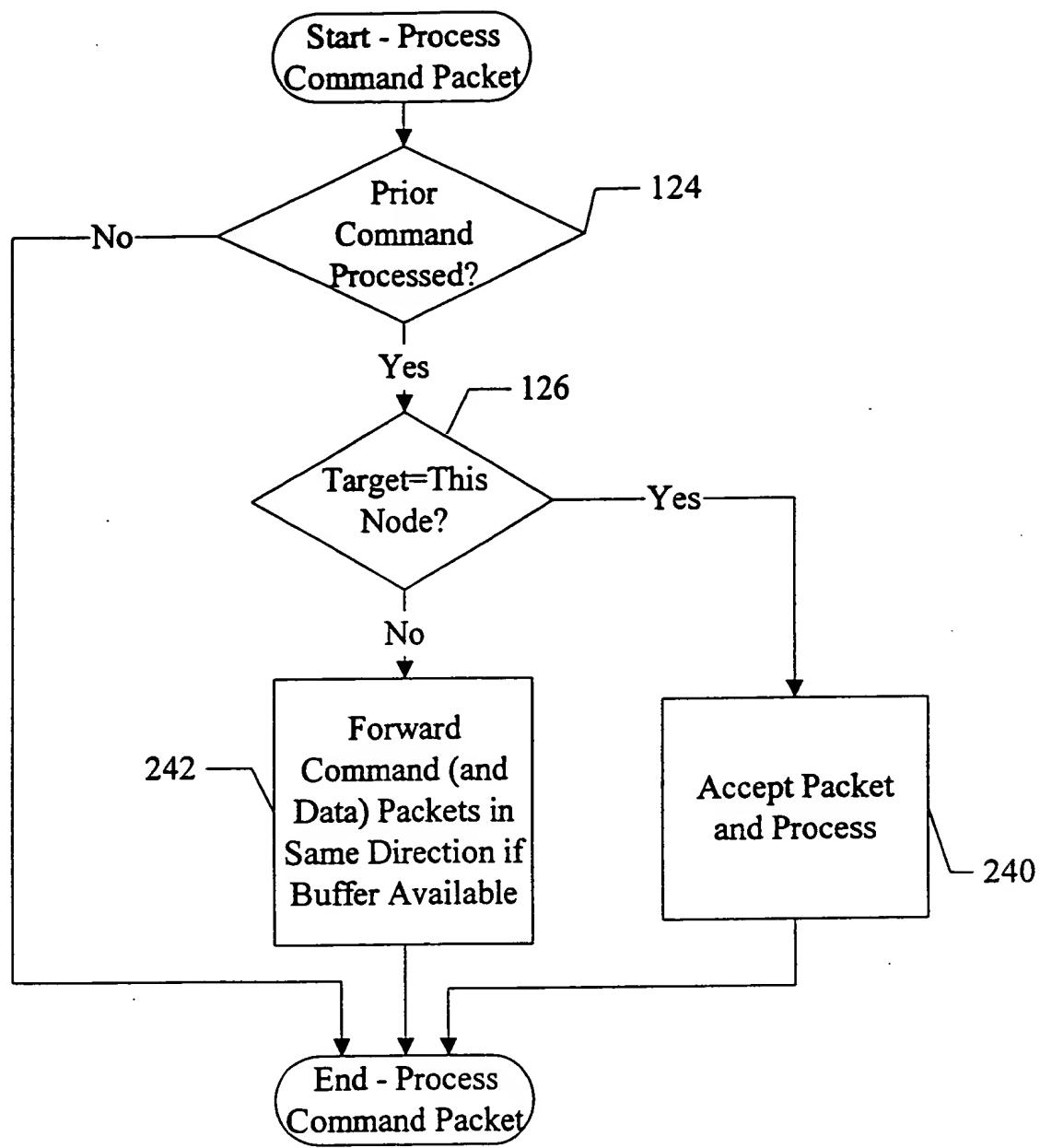


Fig. 25

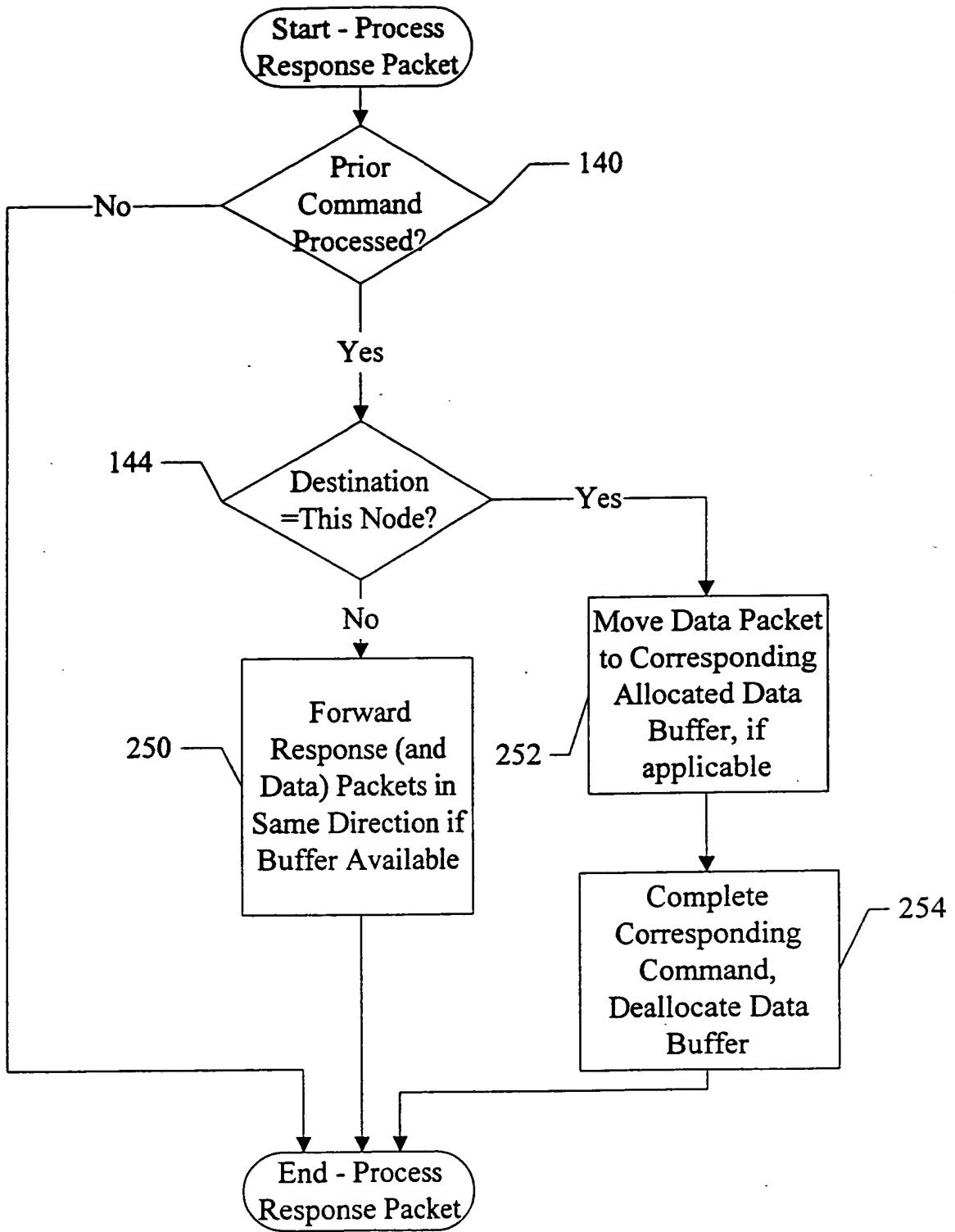


Fig. 26

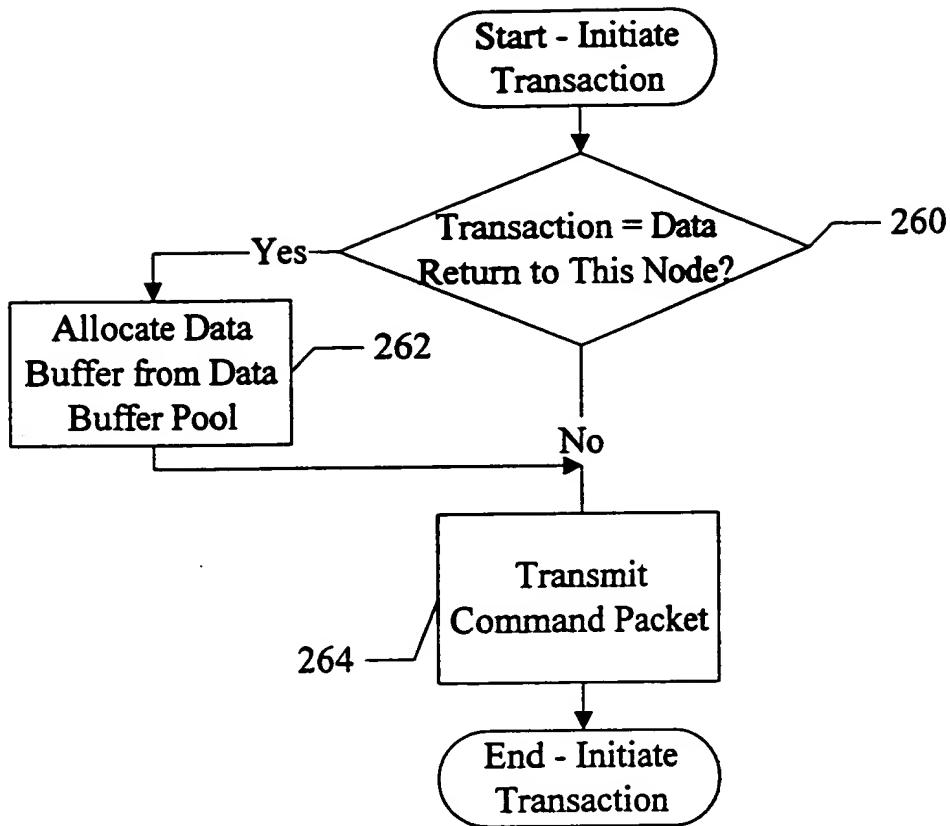


Fig. 27

<b>First Command (CMD<sub>1</sub>)</b>	<b>Second Command (CMD<sub>2</sub>)</b>	<b>Wait Requirements</b>
Memory Write	Memory Write	1. CMD <sub>2</sub> waits for TgtStart <sub>1</sub> , 2. SrcDone <sub>2</sub> waits for TgtDone <sub>1</sub> , 3. TgtDone <sub>2</sub> on Noncoherent Link waits for TgtDone <sub>1</sub> on Coherent Link
Memory Write	Memory Read	1. CMD <sub>2</sub> waits for TgtStart <sub>1</sub> , 2. RdResponse <sub>2</sub> on Noncoherent Link waits for TgtDone <sub>1</sub> on Coherent Link
Memory Read	Any Memory	CMD <sub>2</sub> waits for TgtStart <sub>1</sub>
Memory Write	I/O or Interrupt	CMD <sub>2</sub> waits for TgtDone <sub>1</sub>
Memory Read	Any I/O	CMD <sub>2</sub> waits for TgtStart <sub>1</sub>
Memory Write	Flush	TgtDone <sub>2</sub> on the Noncoherenct Link waits for TgtDone <sub>1</sub> on the Coherent Link
Memory Write	Response	Response <sub>2</sub> waits for TgtDone <sub>1</sub>
Memory Read	Response	Response <sub>2</sub> waits for TgtStart <sub>1</sub>
Any I/O	Any Memory, any I/O, or Interrupt	CMD <sub>2</sub> waits for TgtStart <sub>1</sub>
Any I/O	Flush	TgtDone <sub>2</sub> on the Noncoherenct Link waits for TgtStart <sub>1</sub> on the Coherent Link
Any I/O	Response	Response <sub>2</sub> waits for TgtStart <sub>1</sub>
Interrupt Broadcast, Low Priority	Interrupt Broadcast	CMD <sub>2</sub> waits for RdResponse <sub>1</sub>
SysMgt Write	Response	Response <sub>2</sub> waits for TgtDone <sub>1</sub>